

AUG 23 1962

The Macdonald FARM Journal



L. 23, NO. 8

AUGUST, 1962



Name the Fibre

Milk

The Apple Leaf and Apple Scab



THE MACDONALD LASSIE

Editorial

QDA Reorganization Welcome

Over the past few months the reorganization of the Quebec Departments of Agriculture and Colonization has been quietly proceeding. It is with considerable pleasure that the Macdonald Farm Journal reports the new organization in this August issue (see page 178). The new organization should prepare the Department for a vigorous attack on the many problems confronting agriculture in Quebec.

The first change which should be noted is the combining of the Departments of Agriculture and Colonization, into the one Department of Agriculture and Colonization. Although both had been responsible to the same Minister since the coming to power of the Liberal government, they had not been combined administratively. The new arrangement should provide for better use of manpower within the Department and should eliminate conflicting policies which existed when the Department of Colonization was desperately trying to pursue the policy developed for it in the dirty thirties and the early years of World War II. Quebec may have good arable land to develop, but not in the manner that the late Department of Colonization had been trying to proceed.

A second important change is the realignment and division of the functions of the Department in six General Directorates and a seventh Directorate for rural planning and regional economic development. The regrouping of Department functions should put it in a much improved position to deal with different aspects of the agricultural industry, an industry which has evolved considerably since the previous Department organization was established.

Elimination of the Dairy Industry Commission and the transfer of its powers to the Farm Marketing Board is very much to be commended. No longer will there be any confusion about responsibility such as has existed for the past four years. The Farm Marketing Board is now in a position to act

decisively and promptly. The very act of eliminating the Dairy Industry Commission may be heralded as a major step in clarifying the confusion of dairy products marketing.

The introduction of Regional Inspectorates to co-ordinate, on a regional basis, the administration of the services comprising the individual Directorates appears to be a logical administrative procedure. Many of the difficulties plaguing agriculture in this Province are regional in nature and must be solved on that basis. There are the special problems of the colonization areas, the difficulties characteristic of the Gaspé and Lower St. Lawrence region, etc. In each region a slightly different farming pattern has evolved. Only by recognizing regional characteristics and adapting general policies to account for them, will the Department succeed in its work.

County agricultural representatives have a much more demanding role ahead of them than most have been fulfilling. Supervision of the application of government assistance programs will gradually be removed from their shoulders, freeing them for the more important role of working with specialists and technical experts of the Department who will not be as familiar with agriculture locally.

Not everyone will agree with the reorganization which has been decided. Some employees with records of long service may feel that they have been neglected or slighted. The occasional farmer may not be pleased with the new setup. However, the administrative organization looks good on paper. It brings to an end a long period of anticipation and has already resulted in a shakeup which must be beneficial if for no other reason than that it has given pause for self-examination.

Appointment, too, of an advisory council for agriculture is now definite. The council has held its first meeting. Members include two representatives each from the

Quebec Department of Agriculture, the Union Catholique des Cultivateurs, the Coopérative Fédérée and La Corporation des Agronomes (professional association of agronomes for Quebec) and one representative each from the Quebec Farmers' Association and the association representing colonists. This council should assure a concerted approach to problems and improve co-operation among various groups interested in the agricultural industry of the Province.

In the final analysis, however, the effectiveness of the new organization will depend upon the initiative, desire to co-operate and the intelligence which each person concerned brings to his position. It should usher in a new era for agriculture in the Province of Quebec.

by L. G. YOUNG

Sen. H. C. Bois Dies

Senator H. C. Bois, widely known as an agricultural leader in Quebec, died July 19th at age 65. Following his studies in agriculture, Dr. Bois was employed by the Economy Service of the Department of Agriculture. He was secretary of the Coopérative Fédérée de Québec for five years and general manager for fourteen years. He was a staunch supporter of co-operatives and well known in co-operative circles. In addition Dr. Bois was a founder of La Corporation des Agronomes. He served on the 1948-49 Royal Commission on Prices and was named to the Senate in 1957.

SUMMER VEGETABLES

This publication tells how to cook summer vegetables, suggests suitable seasonings and gives recipes for sauces to serve with them. Prepared by the Consumer Section, Canada Department of Agriculture, in May of 1962, it is available from the Information Division, Canada Department of Agriculture, Ottawa. Publication number 1130.

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L. G. Young, Macdonald College,
Que.

Observations

ANOTHER TRAP

And again! Apiculturists have come up with an improved method of collecting pollen from bees. Bees not only collect honey, but also pollen, which is rich in proteins, fats, vitamins and minerals. Now man has discovered that this is a rich human dietary supplement. What does he do? To collect the pollen he forces the bee to climb through two thicknesses of 5 mesh galvanized screen placed $\frac{1}{4}$ inch apart. The pollen is rubbed off their legs and drops through a smaller screen into a tray where the bee cannot recover it.

If only man were clever enough to trick himself into working as hard as the bees! A vain thought, of course, since man, if he found himself in such a predicament, would struggle till he devised a scheme to extricate himself. But it does make one wonder what the world would be like if every human occupied himself to the maximum in constructive measures? Or what the next generations of bees will mutter to one another as

they return home tired only to find they have to squeeze through two basement windows before they can lower their booty?

MUSTY PURITY

There's something about milk that overawes man! Perhaps it's because milk is the first food most mammals taste, and is therefore considered to be Nature's *perfect* food. Whatever it is, in a vain attempt at *purity* we have surrounded milk and milk products with about the greatest array of restraining legislation ever conceived for any food product. Take milk. Thou shall sell it in containers of a certain range of sizes only. Thou shall sell it within a certain price range. Thou shall check it with a geiger counter immediately fallout starts falling out.

Or butter. Thou shall limit colour variation within a narrow range. Thou shall control flavour and composition with care. Thou shall package in certain size packages only. And then we wonder why butter and milk are failing

to retain a consumer following? The pampered, pure, product is heaved into the marketplace and is expected, by standing on its traditional pedestal of purity, to acquit itself well against the bejewelled, tasty, shapely, seductive and unprincipled rivals it faces. Perhaps its time we loosened our stays and gave processors a few more cents of the consumers' dairy dollars. Who knows? A little merchandising effort might yet sell dairy products!

COVER PICTURE

Little Miss Bernadette Gervais collects the eggs with care on her fathers' farm at St-Isidore in the County of Laprairie. Photo by Ciné-Photo.

CONTROL OF THE SHEEP KED

This concise eight-page leaflet describes the control of the Sheep Ked as well as its life history, economic importance, and the various treatments to effect control. *Publication No. 1142* — became available in May 1962 — available from the Information Division, Canada Department of Agriculture, Ottawa, Ontario.

MILK

should it be purchased on the basis of TOTAL SOLIDS, SOLIDS-NOT-FAT, or PROTEIN?

The consumer is placing more and more emphasis on the solids-not-fat of milk, yet the producer is still paid on the basis of fat content. Prof. MacRae, who is in charge of a research project at Macdonald College concerning genetic factors relating to milk composition, discusses some of the questions which research must answer to help the dairy industry out of its dilemma.

The dairy industry is at an important crossroads. The industry of the past and present has been, and is, based on a pricing system geared to butterfat content. Consequently, breeding systems have been directed to the same objective.

Our grandparents prized milk chiefly for its fat content. Milk was converted to cream or butter before it went to market. In those days skimmed milk had no commercial value and was good only for pigs and chickens. Fat held the prize spot on the market. Indeed, this fact was so generally accepted that it became part of our language. Such expressions as "the cream of the crop" or "the

fat of the land" became very familiar and skimmilk became almost a term of contempt.

But times have changed. The per capita consumption of butter is decreasing, ice milk is replacing ice cream and many of our food advertisements stress the low-calorie aspects of the particular product. Skimmilk has earned a prominent place on display counters, and indeed, commands a price only a little lower than that of whole milk. Enormous amounts of dried skimmilk are now used for human food and cottage cheese has become one of the important products of the dairy industry. The presence of milk on the market with some of the fat removed (to



by Prof. H. F. MacRAE,
Department of Animal Science

test 2%) is well known.

The new approach in the dairy industry stresses the nutritional aspects of milk with the non-fat portion receiving increasing attention. Current trends, now very familiar to the dairyman, are away from high fat food toward high protein diets. This new pattern which has developed must be recognized if we are to keep milk in its rightful place in the human diet. Recognition of these facts will place more and more emphasis on the solids-not-fat content of milk and particularly on the protein content.

Many problems, for which the dairy industry is unprepared, are posed by this new pattern. More information is needed on the composition of milk of different breeds and families within breeds. Without this information it is not possible to embark on a breeding program aimed at producing milk higher in solids-not-fat. Using the two College herds, Holstein and Ayrshire, the Department of Animal Science at Macdonald is starting a project to study the genetic factors influencing milk composition. At the same time studies will be made to determine rapid, reliable methods of testing for milk constituents.

Composition of Milk

No other single food has as many nutritional virtues as milk. It is not, however, a perfect food, since it lacks iron and copper among other essential nutrients.

An approximate average composition of cow's whole milk would be as follows: water, 87%; protein, 3.4%; lactose, 4.8%; fat,

Sherbrooke 77th Anniversary Exhibition

In the heart of Quebec Vacationland.

Seven evenings and six full days of educational and entertaining events.

Friday Evening August 24th to Thursday Evening. August 30th.

The largest display of dairy cattle in Eastern Canada.
Big display of dairy calves by members of junior breeders' clubs.
Livestock parades TUESDAY and WEDNESDAY.
Large display of maple products, field and garden crops, flowers, cooking and handicrafts.
Provincial judging competitions.
Harness racing three afternoons and three nights.
Animal circus in the arena. Sunday to Thursday night.
The famous Conklin Midway, Friday to Thursday.
Bands in attendance Sunday to Thursday.
The Big Bingo Friday evening, August 24th.
The Lucky Hell Drivers: Two nights.
Wrestling.

Drawing for two Chevrolet automobiles on wednesday night, August 29th.

W. W. NICHOL,
President

IVAN DUGRE & E. NICHOL,
Vice Presidents

J. E. LAMONTAGNE,
Sec. Treas.

3.5%; mineral ash, 0.7%. The total solids in milk refers to the sum of the protein, lactose, fat, minerals and vitamins. The solids-not-fat content refers to the total solids minus the fat content. To determine solids-not-fat, one must perform an analysis for total solids and one for fat, the difference being the solids-not-fat content.

The proteins of milk are casein, lactalbumen and lactoglobulin. About 80% of the total protein is due to casein, a phosphoprotein of high biological value.

Lactose (milk sugar) constitutes the principal carbohydrate of milk and although it is an excellent carbohydrate from a biological standpoint, it appears to have little special virtue compared to sucrose (table sugar), for instance.

The mineral constituents of milk are present in a rather unique proportion. For many years people have simulated this composition for a mineral mixture to be used in synthetic experimental animal diets, and indeed, such mixtures are widely used for this purpose today. The calcium-phosphorus ratio is such that excellent utilization of these elements is possible in man and animals. The calcium content is higher than in practically any other important food.

Milk is a good source of vitamin A. It contains very little vitamin D, unless it is fortified to provide one of the types of "vitamin D milk." The ascorbic acid (vitamin C) concentration is low and pasteurization destroys approximately one-half the original content. Milk has rather low concentrations of the B vitamins, but because of the relatively large amounts of milk consumed by the majority of children, this source is quite significant in the over-all intake.

Total Solids or Protein?

Since consumers are now more interested in the solids-not-fat of milk than in milk fat, one of the most obvious needs is to change the goal of our breeding program. There is little point in continuing to attempt to produce more milk fat when the public does not want more fat and furthermore is unwilling to pay the cost of its production. The general view is that we must attempt to increase production of those constituents which the consumer does want.

In practice, this means that a change must be made in the basis of payment for milk products. That is, the commercial value of

milk products is no longer so dependent on fat content as evidenced by the growing demand for bottled skimmilk, cottage cheese and milk powder and by the lower demand for cream and butter. Therefore, it is argued that a realistic basis for payment must recognize the value of the non-fat milk constituents.

It is generally recognized that we are a little late in getting a program under way in this country. In Holland, for example, where it is said that the calorie counters are far less numerous than in this country or in the United States, milk is now sold on the basis of both protein and fat content. They are equipped to test over 5,000 samples of milk for protein content in one day by a staff of seven persons. The laboratory has a capacity of 15,000 samples per day.

Two different plans for measuring the value of skimmilk seem to have emerged. One would base the price upon total solids content while the other would base it on protein content. Both these plans have been used on a limited scale in the United States and there are arguments for and against each plan. We might use both methods

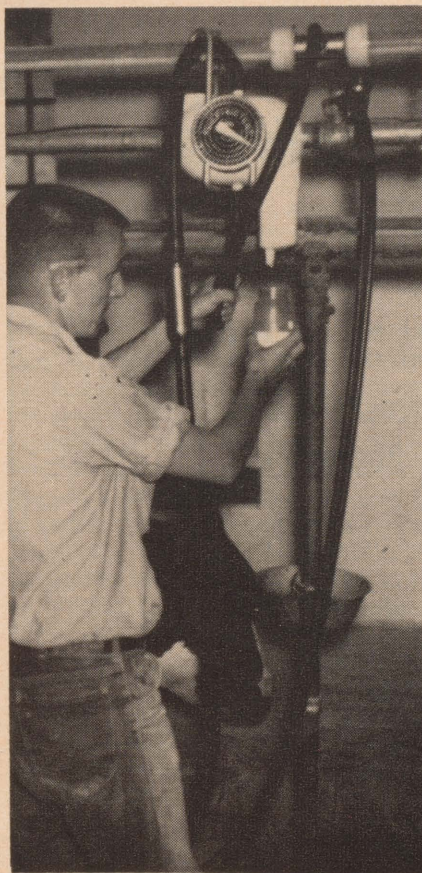
in the future but this could very well cause more confusion and dissatisfaction which could be avoided if we could all agree to use the same method.

One can, however, make a strong case for testing and selecting cows for protein alone, because of its high nutritional value and the fact that it requires just one test rather than two as with solids-not-fat. Furthermore, the need for high biological protein is world-wide and milk supplies it at low cost. Limited work to date indicates that protein varies considerably and that it contributes more to the variation of solids-not-fat than lactose. In addition, this evidence indicates that these differences are highly heritable and if so, the protein content of milk could be increased by breeding. There is little question that dairy cattle breeders need genetic information on the solids-not-fat and protein content of milk in order to make intelligent decisions about changing their selection practices to meet the new importance of these constituents and their effect on future market changes.

New Methods of Analysis

Before any decision can be made whether to pay on the basis of solids-not-fat or protein, we must investigate the practical problem of analysis from the standpoint of cost, speed and accuracy. Many of the accepted standard methods, either for protein (Kjeldahl) or solids-not-fat (lactometer methods or oven drying) are time consuming and costly. Many new rapid methods are emerging for protein determination such as the Kofranyi steam distillation method and various protein dye-binding methods. New density methods for solids-not-fat have also appeared. The Golding plastic beads method shows considerable promise. The Darison, an instrument developed by the Chesapeake instrument Corporation in co-operation with the University of Wisconsin, is designed to measure simultaneously both the solids-not-fat and butterfat content of milk. This instrument is based on ultrasonic principles. All these new rapid methods must be carefully examined in many different laboratories and compared with existing standard methods, to assess their reliability. One phase of our present project will involve an examination of some of these newer methods.

Many factors are known to influence milk composition, such as



Taking a milk sample for analysis under the watchful eyes of this placid MacDonald Holstein. Sample is taken as milk enters pipeline.

cattle breed, stage of lactation, environment and feeding and management practices. Many analyses of milk composition will be required in order to separate the effects of these various factors. We are endeavoring to secure data now in sufficient numbers to provide the necessary information on genetic factors influencing milk composition. Since dairy cattle breeding is a slow process, this type of project must be continued for a considerable time. However, it is imperative that such information be made available as soon as possible to meet the needs of the dairy industry.

MASTER FEEDS, PIONEER-CAFETERIA JOIN FORCES

Master Feeds, division of Maple Leaf Mills Limited, and Pioneer-Cafeteria Feeds Ltd., a wholly owned subsidiary of Maple Leaf Mills officially amalgamated their operations under the Master Feeds name on August 1st. Announcing this development, J. D. Leitch, Chairman of the Board, stated that the union of the two organizations would result in improved efficiency through eliminating duplication of effort. All feeds will now be manufactured under the Master name and the combined resources of Master Feeds and Pioneer-Cafeteria Feeds will enable the new division to improve its nationwide service, increase nutritional and farm management research and effect economies in distribution and manufacture.

H. R. Cook continues as vice-president in charge of the Feed Division. A. W. Archibald, General Sales Manager, Master Feeds, retains the same position in the new organization. Administrative Manager is J. S. Clarke who held this position with Pioneer-Cafeteria Feeds. J. S. Fisher is Production Manager, as he was with Pioneer-Cafeteria.

Dr. W. D. Morrison, continuing as Director of Nutrition and Research, will supervise an expanded research program at the Master Feeds Research Farm, Thornhill, Ont. Dr. I. R. Sparling is Director of Technical Services. Dr. E. R. Bowness is Director of Fur Animal Research and Advertising Manager. W. F. Graham is Sales Promotion Manager.

The Master Feeds Division is headquartered in the considerably enlarged Master Feeds office building on the Toronto water-

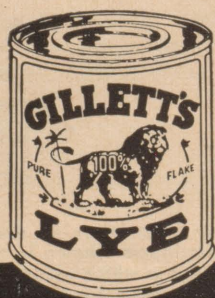
(Continued on Page 177)

"Gillett's is important to sanitation"



Mr. Ross Marshall, Kirkton, Ontario, washing up after milking uses Lye Method, widely recommended by Government authorities as the most effective and inexpensive for cleaning and disinfecting teat cups and assemblies.

One of Huron County's outstanding dairy farmers, Mr. Ross Marshall of Meri Acres Farm practices strict sanitation to prevent disease and profit loss. He has found that Gillett's Lye is one of the most effective and economical products for dozens of cleaning and sanitizing jobs around the farm. Says Mr. Marshall, "Gillett's Lye plays an important part in the sanitation of our farm."



FREE!

Sixty-page booklet prepared by an eminent Canadian Bacteriologist. Tells you how to effectively clean and disinfect at low cost. Covers dairy herd, stables, milking machines, utensils. For free copy, write: Standard Brands Ltd., 550 Sherbrooke W., Montreal.

IN REGULAR SIZE AND
MONEY-SAVING 5 LB. CANS.

The APPLE LEAF

What secrets do the leaves of apple trees hold which might help in the control of apple scab? Do the substances lost to the surfaces of leaves promote or hinder the development of apple scab? These are some of the questions which research at Macdonald College hopes to answer. The answer may be worth thousands, perhaps millions of dollars to apple growers. The experiment to determine the different substances on apple leaves, and their effect on scab fungus, has been in progress about 18 months.

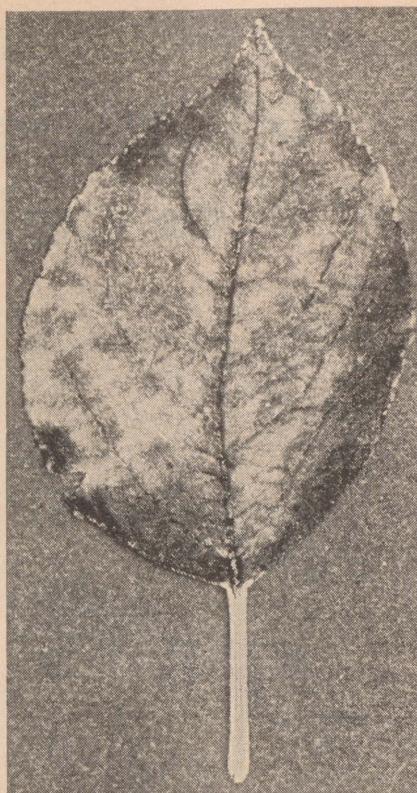
Apple Scab

Apple scab is caused by a fungus (*Venturia inaequalis*) which attacks leaves, petioles, flowers and fruits of the apple tree. The disease usually appears as round, olive-coloured lesions having a velvety appearance. As the fungus develops the lesions become larger. If numerous, they may eventually cover the whole surface of the leaf which then curls, dries and drops.

There are a number of different races of apple scab fungus. While scab shows most commonly on leaves as reasonably large olive-coloured lesions, it may also be noted as small flecks on the leaves. The flecks are not indications of diseased leaves, but mean that the leaves have resisted attack by the fungus.

Fruits are affected by scab and are susceptible at all stages of development. When attacked by the disease they may become cracked or remain dwarfed and misshapen.

Cool, rainy climates favour the disease. The degree of severity of the disease varies with the temperature and the length of time the surface of the leaf or fruit remains wet. The longer the surface remains wet, the more pronounced the disease is likely to be. A temperature of about 60° tends to favour scab.



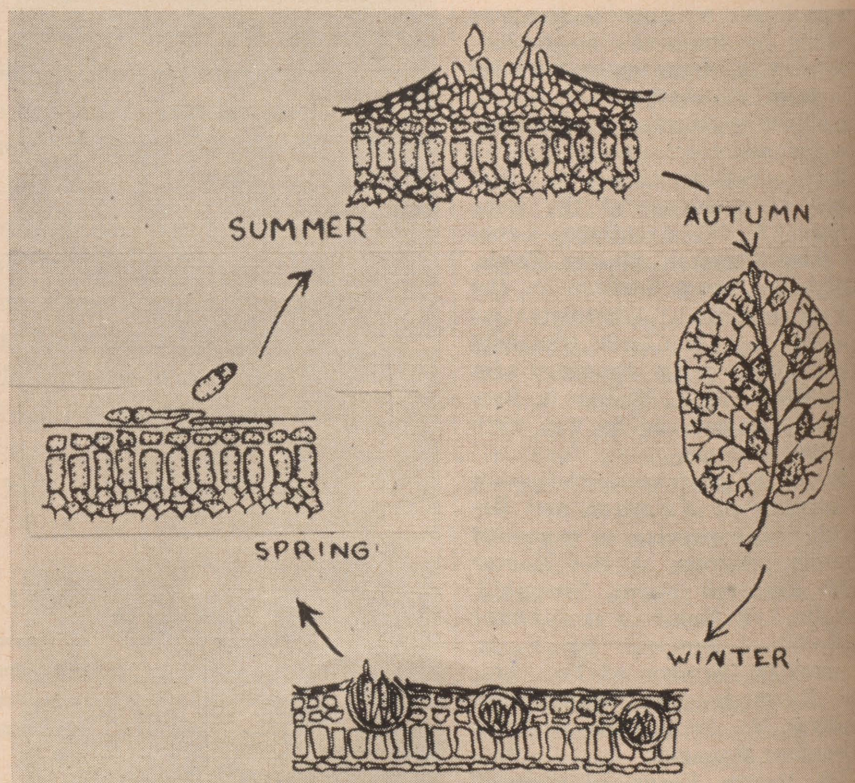
In this picture dark spots are apple scab, white area of leaf is the normal healthy green colour.

and APPLE SCAB

Life Cycle of Scab

Apple scab is caused by a parasitic fungus depending for its living on leaf, fruit or flower of the apple tree. The organism which causes scab overwinters in the

leaves. In the fallen leaf, the fungus forms little spheres called perithecia containing germs (spores) called ascospores in small sacs (asci). In spring the perithecia ripens and the ascospores within the asci are ejected in the air during rain showers. If the ejected ascospore contacts a newly developed leaf, it causes a primary infection. Once the disease is established, the fungus produces another kind of germs called conidiospores which causes other infections of scab throughout the season. In au-



Apple scab overwinters in dead leaves. During the winter and spring the fungus develops perithecia (shown in the cross-section view of leaf as spheres) which contain elongated sacs in which ascospores are produced. The ascospores contact the new leaves and grow a germ tube through the surface of the leaf. From this infection conidiospores are formed (see top) which cause other infections throughout the season.

turn the leaves fall to the ground and the cycle commences all over again.

To protect the leaves from the disease the only effective measure is to follow a spraying program to cover the leaves with a protectant fungicide. Such a program must be carefully scheduled so as to cover the new surface of leaves as they develop. In orchards where such a program is not followed, the disease may be very destructive, reducing, in severe cases, the crop by 30% to 50% or more. To assist pomologists in control of the disease, the Quebec Department of Agriculture publishes a *Spraying Guide for Apple Trees* each year which may be obtained from the Information and Research Service, Quebec Department of Agriculture, Quebec.

For the producer an effective spraying program involves a great deal of expense and work. Fungicides must be purchased. Fairly expensive spray equipment is necessary to apply the fungicides properly.

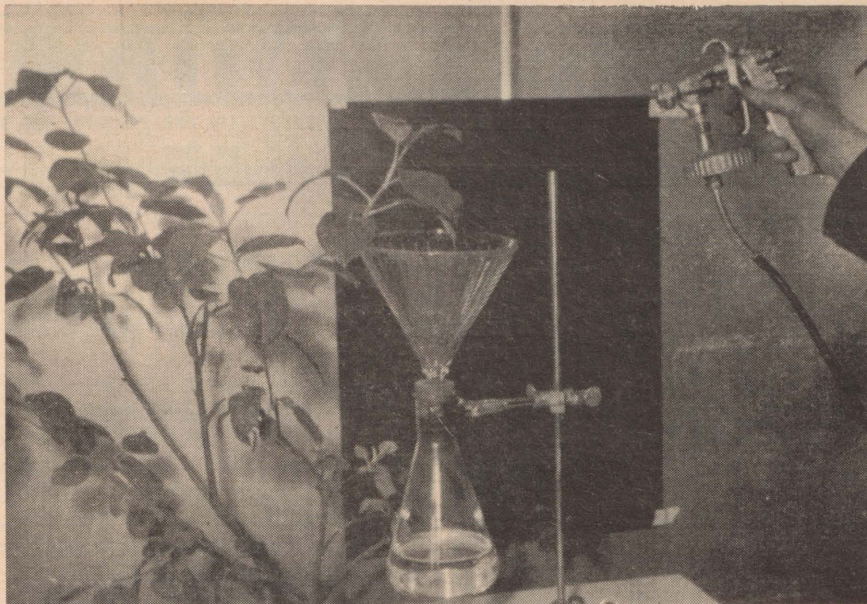
The Experiment

Dr. R. L. Pelletier, assisted by graduate students, has been investigating the relations between various plant parasites and their hosts in the laboratories of the Department of Entomology and Plant Pathology at Macdonald College. One project has been the study of the influence which organic substances present on the surface of the leaf may have on the germination and growth of the spores of apple scab fungus. Some interesting facts have been learned which may eventually aid in the control of apple scab. For instance, it was found that the material on the leaves stimulates the growth of certain races of fungus, but retards the growth of others.

It is well known that plants can absorb substances by their leaves, but only more recently has it been discovered that plants can lose substances through their leaves. They lose minerals, sugars, amino acids, etc., which are referred to as leachates.

The leachates were removed from the leaves of McIntosh trees, grown in a greenhouse, which were free of sprays and other foreign materials. A fine mist of distilled water was sprayed on the leaves where it condensed and was collected as it ran off the leaves (see picture) taking the leachates with it.

This leachate solution was then concentrated by evaporation to a



Collecting leachates by mist spray of distilled water.



by **Mr. L. M. TARTIER**
Department of Entomology and
Plant Pathology

Mr. Tartier is a graduate student working toward his M. Sc.

small volume and spores of two races of scab fungus, one causing lesions and the other very small flecks, were added to the liquid. From a number of experiments it appeared that the germination of the spores of the more aggressive race was stimulated by the leachates of the leaves while the spores of the less aggressive race were inhibited. This would seem to indicate that the substances present at the surface of the leaf have a role to play in determining whether the leaf will become diseased.

The leachates have been analysed and found to contain at least 17 amino acids and 3 sugars. Which of these compounds or others, as yet not isolated, are responsible for the stimulation and inhibition of the

fungus growth? We do not know although we hope that by future research we will find out and thus help to understand and better control apple scab.

MASTER FEEDS

(Continued from page 175)

front. There are ten mills located across Canada including the ultra-modern mills recently opened at Prescott and Ste. Foy. A well trained staff of seventy-five field service men guarantee prompt technical feed and nutrition service to customers. Mr. Leitch stated, "One of the reasons prompting the amalgamation of Master and Pioneer-Cafeteria, was the desire to put the outstanding research facilities of the Master Feeds Research Farm at the disposal of both feed organizations and so to make them available to our farm customers everywhere in Canada. The Master Feeds Research Farm, as the leading commercially-operated research farm in our country will continue to contribute substantially to the improvement of agricultural practices in Canada."

ROCK CORNISH GAME HENS

This little publication describes the raising and marketing of Rock Cornish Game hens. It provides much information for those interested in this type of specialty product. *Publication No. 1156* — became available in May 1962 — and may be obtained from The Information Division, Canada Department of Agriculture, Ottawa, Ontario.

THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE
BY THE
QUEBEC DEPARTMENT OF AGRICULTURE

Compiled by T. Pickup of the Information and Research Service, Quebec Department of Agriculture.

THE ORGANIZATION OF THE Quebec Department of Agriculture and Colonization

The Act combining the two hitherto separate Departments of Agriculture and of Colonization of the Province of Quebec in a single ministry has been in force since the first of April 1962. The various services of the two old departments have now been regrouped into the following six General Directorates of the new Department of Agriculture and Colonization;

Regional Inspectorates

In addition to the foregoing

Directorates, seven Regional Inspectorates have been established. These will play an intermediate role, linking the Directorates with the local representatives of the Department (county agronomes, specialized agronomes, etc.) They are as follows: (see below)

Duties of General Directors

The duties of the General Directors are described officially as follows:

1. to assist the authorities (the Minister, Deputy Minister, and

GENERAL DIRECTORATES

DIRECTORATE	DIRECTOR
PRODUCTION AND MARKETING	J. M. BONIN (temporary)
Economics; dairy products; animal production; horticultural production; woodland production.	
FARM MANAGEMENT	ANDRÉ AUGER
Soils (including classification, mapping, testing, and conservation); management of the farm, crops and soil; farm buildings and machinery; land use.	
RESEARCH, EDUCATION, AND SCIENTIFIC INFORMATION	DR. GEORGES GAUTHIER
Research; education: scientific information; extension; health of animals.	
AGRICULTURAL ENGINEERING	ROBERT DUQUETTE
Drainage; mechanized projects; equipment, material, and storage depots.	
COLONIZATION	VINCENT-FERRIER CHAGNON
Settlement; granting of land; subsidies; roads in pioneer areas.	
ADMINISTRATION	J. ERNEST DUBÉ
Personnel; agricultural cooperatives; accounts; supplies; archives.	

There is also a seventh Directorate which will be responsible (under the direction of HENRI DUBORD) for rural planning and regional economic development.

(REGIONAL INSPECTORATES)

RÉGION	INSPECTOR
GASPÉ AND LOWER ST LAWRENCE	ADRIEN MARTIN
SOUTH OF QUÉBEC	JEAN PAUL ROUSSEAU
EASTERN TOWNSHIPS AND BOIS-FRANC	J. B. SIROIS
SOUTH OF MONTRÉAL	JEAN HARDY
NORTH OF MONTRÉAL	FLORENT MORENCY
NORTH OF QUÉBEC AND LAKE ST JOHN	J. RODOLPHE CLOUTIER
ABITIBI AND TÉMISKAMING	J. LALIBERTÉ



Hon. Alcide Courcy, Minister of Agriculture and Colonization of the Province of Quebec.

others) to devise policies in connection with the management and rational cultivation of farms and the marketing of agricultural produce;

2. to supervise the application of the aforesaid policies and the carrying out of programmes of agricultural consolidation and modernization;

3. to coordinate the administration of the services comprising the individual Directorates.

The seventh Directorate mentioned above (under Mr. Henri Dubord) is concerned with the restoration and organization of farm lands. The Director will co-operate on the one hand with the Government of Canada in the application of the Agricultural Rehabilitation and Development Act (ARDA) and, on the other hand, with all services of the Department of Agriculture and Colonization and of the other Departments of the Provincial Government, and, in addition, with regional groups interested in drawing up and putting into effect rural management

plans (councils of economic orientation, etc.)

The Director of Production and Marketing is also technical adviser to the Farm Marketing Board. This Board will have increased powers, including those of the Dairy Industry Commission and a part of those of the Inspector General of Dairy Products.

Duties of Heads of Services

Within each Directorate, the heads of the various constituent services will collaborate with the Director and, outside of it, with the Regional Inspectors in formulating and applying the policies of the Department: they will also have many opportunities to act as technical advisers to the General Directors and Regional Inspectors.

Duties of Regional Inspectors

Regional Inspectors will act as intermediaries between the Directorates and the county or district representatives of the Department. They will also be responsible for co-ordinating all the activities of the Department's technical personnel in their respective regions. These duties are officially described as follows:

- 1. to guide, co-ordinate and supervise regional and local plans of agricultural consolidation;
- 2. to be responsible for professional and technical work and for the use of the Department's equipment and material;
- 3. to carry out co-ordination and administration at the regional level.

Regional Inspectors will be assisted in their duties by heads of services, by experts in various fields of agriculture, and by specialists located at Montreal or Quebec or in their own regions.

District and County Representatives of the Department

As in the past, there will be local representatives acting in advisory and supervisory capacities. The district agents (specialized agronomes, forestry and other engineers, and agricultural instructors) whose advisory duties extend over a number of counties, are responsible to the Directorates concerned (from an administrative standpoint): they will work, however, in close cooperation with the Regional Inspectors, heads of services, and county agronomes.

Duties of County Agronomes

The duties of county agronomes are as follows:

- 1. to guide, co-ordinate, and supervise the work and technical activities of all employees of the Department at the county level;
- 2. to give advice, with the help of their assistants, concerning methods of carrying out the programme for the consolidation of the family farm in their counties;
- 3. together with their assistants, to fulfil the role of technical, social, and economic adviser to farmers and settlers in the task of agricultural readjustment. They will also advise local agricultural consolidation committees.

Supervisory tasks (inspections and inquiries in connection with the application of various agricultural Acts and policies of government assistance) will henceforth be increasingly carried out by assistants. Such supervisory personnel, usually working in a number of counties at once, will be responsible (administratively) to the Directorates concerned, but they will cooperate closely with the Regional Inspectors, heads of services, and county agronomes. It has been decided that, in some regions, district heads and inspectors of the old Department of Colonization will assume a number of the supervisory duties which have not as yet been otherwise allotted. The necessary differentiation between the duties of advisers and the duties of supervisors will gradually be made more complete and, as a result, the work of personnel of the Department will be rendered more efficient.

The Minister of Agriculture and Colonization, Mr. Alcide Courcy, earnestly asks for the cooperation of all farm organizations in the working out of his policy for the modernization of Quebec agriculture. The consolidation of the family farm and the restoration and proper use of our agricultural land will only be possible to the extent that those mainly concerned—the farmers of the Province—take part in them. For his part, Mr. Courcy intends to make full and efficient use of all the human and financial resources at his disposal.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.



Andrée Thériault poses in the corn at St-Pascal in the County of Kamouraska.

PICKING AND HANDLING OF SWEET CORN

Sweet corn is a tempting vegetable, very much relished by the consumer if it is picked at the right time. But, in its later stages of maturity, it turns hard and tough and loses much of its flavour. Corn matures rapidly, especially in hot weather: the grower must therefore pay particular attention to the timing of the picking. A delay of only a day or two sometimes results in a product of inferior quality.

Mr. H. Robert of the Quebec Department of Agriculture and Colonization says that ripening corn passes through various stages. The contents of the kernel, at first watery, turn milky in appearance, then creamy in consistency, next pasty or doughy, and later mealy. The ears should be harvested when they are in the creamy stage since the flavour is then at its best.

Instruments have been designed to test the quality of corn precisely. These are helpful in determining its readiness for harvest but they are somewhat expensive and rare in the Province of Quebec.

A simple way to decide when corn is ready, is to gather a few cobs from different places in the field and then test the kernels by pressing them with the thumbnail. If they burst, allowing a rather creamy fluid to escape, the corn is ready to be picked and should be hurried to the cannery without delay, particularly in view of the fact that, in this condition, it is soon apt to ferment.

BEEKEEPERS ARE URGED TO SHOW THEIR PRODUCTS

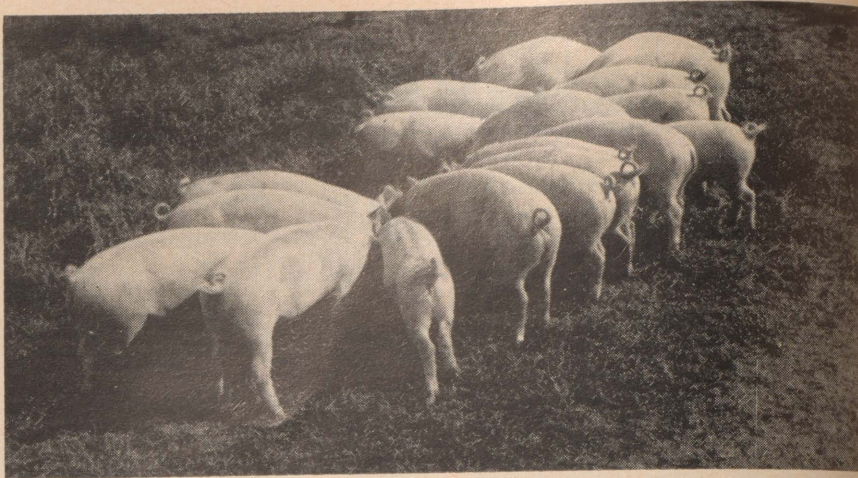
Mr. H. J. Plourde of the Quebec Department of Agriculture and Colonization sends the following message to beekeepers and producers of maple products: "At the beginning of May, I received a letter from Mr. P. W. Burke, assistant-chief of the Ontario division of Apiculture, asking me strongly to persuade all beekeepers in the Province to show their products at the Canadian National Exhibition at Toronto. Entries will be accepted up to August 13th, the judging date. "The prizes offered are exactly the same as those at the Toronto Royal Winter Fair. Last year, there were only a few exhibitors, probably because the exhibition was held a week earlier while the honey harvest was a little late. This year, the promoters of the exhibition expect many entries from all the Provinces of Canada. "I urge you very strongly to take part in this exhibition. In the past, several of our beekeepers have won honours for the Province at the Toronto Winter Fair and won some very nice prizes. This reputation is well worth preserving, if only to show the world that we have skilled and highly qualified beekeepers and honey of unequalled flavour and colour. In the case of white honey, this year's crop will already have been harvested; in the case of coloured honey, last year's may be used".

"In order to gain experience, younger beekeepers should first take part in our regional and provincial shows and exhibitions. Later, well informed and trained, they should participate in inter-provincial exhibitions".

"The regional instructors in apiculture of the Province of Quebec are always at the service of anyone who wishes to exhibit his products at exhibitions. It will be a pleasure for them to place their knowledge and skill at the disposal of beekeepers".

HOW TO STORE EGGS

The way in which eggs are stored on the farm has a considerable influence on their quality. Since B and C-grade eggs bring in less profit, it is particularly important to make sure that storage conditions are good. To ensure good quality, collect the eggs often, at least three times a day, and store them immediately in a cool, moderately damp place. They should



A promising lot of young hogs at Ste-Hénédine in Dorchester County. A little more trough space seems to be needed.

PROVINCE OF QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION ANIMAL PRODUCTION SERVICE ENCOURAGEMENT FOR THE PRODUCTION OF BETTER MARKET HOGS

It is now widely recognized that the use of good purebred boars is indispensable to the improvement of the quality of market hogs. In view of this, the Department of Agriculture and Colonization offers the following financial assistance:

A subsidy of up to \$30 may be paid to the owner of a boar which is graded XXX and is 12 months of age or older, on the conditions described in the following regulations:

Regulations

- A. *This offer is restricted to farmers who keep fewer than ten brood sows on their farms;*
- B. *The exact amount of the subsidy will be based on the number of services given by the boar during the period of service defined in item C below, and will be reckoned at the rate of \$1 for each sow served by him;*
- C. *For the purpose of this subsidy, the period of the boar's service will begin on the 1st of July 1962 and end on the 30th of June 1963;*
- D. *The owner of the boar must complete and sign an agreement on a form provided by the Department. This form must be returned to the Animal Production Service before the 1st of July;*
- E. *The owner must keep up to date a record of his boar's services, such as can be checked at any time of the year by an official of the Department;*
- F. *The boar must be kept in good condition in a sanitary place with facilities for outdoor exercise;*
- G. *The subsidy hereby offered may be withheld or reduced if the foregoing conditions are not complied with by the person who keeps the boar.*

These regulations will remain in effect until further notice.

The Deputy Minister of Agriculture and Colonization
ERNEST MERCIER

be left in wire baskets for about twelve hours, to cool off. The temperature recommended is from 50 to 60°F.

Mr. Adrien Dubé, of the Poultry Division of the Quebec Department of Agriculture, also advises poultrymen to do everything they can to prevent eggs from getting dirty. Washing the eggs, if done carelessly, may detract from their

keeping qualities. Eggs should be marketed frequently so that a high-quality product can be offered to the consumers. Better quality will result in increased sales.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

HOME-GROWN TIMOTHY SEED

Why should not farmers in the Province of Quebec produce their own timothy seed? Mr. Paul Méthot of the Department of Agriculture and Colonization answers this question as follows:

A large number of farmers are now interested in producing timothy seed because it is quite profitable and can be carried out with equipment which is to be found on nearly all Quebec farms.

This year, the growth of forage plants was greatly delayed by cool, damp weather in May and, as a result, weeds have made considerable headway especially in old hayfields. Thus, the field of timothy which is to be kept for seed must be chosen with special care, particularly as timothy seed is difficult to clean because its seeds are of the same size and weight as those of a number of weeds, such as oxeye (or white) daisy, winter cress (or yellow rocket) and couch grass. The difficulty of cleaning timothy seed explains why so much of what is sold for export has to be disposed of at prices far lower than those fetched by seed which can qualify as No. 1.

In cutting their timothy, experienced growers usually leave as high a stubble as possible in order to miss the shorter weeds. They also take great care with the

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threshing and handling of the crop, so as to reduce the amount of dehulled seed (the proportion of which is restricted under the terms of the Seeds Act).

Timothy seed should not be harvested until it is well matured. It is better to leave it standing until the seeds are falling from the tips of a large proportion of the heads before starting to cut it. If timothy is to be harvested with a combine, it should be borne in mind that the weather and the crop must be dry if the operation is to be efficient. It is not advisable to start combining too early in the morning nor to continue too late in the day.

Timothy seed which has been harvested with a combine should be spread out in a thin layer on the floor of a well-ventilated building, otherwise there is a risk that it will heat and lose all commercial value.

In some cases, it would even be

NOTICE TO EXHIBITORS OF HONEY and MAPLE PRODUCTS

In view of the fact that some difficulties were experienced last year in connection with competitions involving honey and maple products, Mr. Henri Plourde of the Quebec Department of Agriculture and Colonization, in order to prevent a repetition, wishes to draw the attention of prospective competitors to the following rules.

In order to be eligible and to take part in the "Honey King" or "Maple King" Championships, it is necessary:

1. To have competed at the county, regional, or provincial exhibition or show. The winners in these contests may participate in the championships and, for this purpose, their products will be sent to the Provincial Exhibition at Quebec at the expense of the Government.

2. Many beekeepers or produc-

ers of maple products are under the impression that they have only to exhibit white honey or maple syrup to comply with the rules of the competition. However, this is not all that is required. The full conditions to be met are given below:

In future any competitor who omits to present an entry in any category will be disqualified for failing to fulfill the requirements of the competition.

3. An exhibitor who has already won the title of "Honey King" or "Maple King" is not eligible to compete again for it. He can only be king once. However, the fact of having won the title does not prevent him from showing his products in the regular classes at the Quebec Provincial Exhibition.

It is hoped that all exhibitors of honey or maple products will comply with these instructions.

FOR HONEY KING

Class 1:	White honey;	6 one-pounds jars
Class 2:	Golden or amber honey;	6 one-pound jars
Class 6:	Wax;	3 one-pound cakes

FOR MAPLE KING

Class 1:	Maple sugar;	5 one-pound cakes
Class 3:	Maple syrup;	6 half-bottles
Class 5:	Maple butter;	3 half-pint glasses.

better to clean timothy seed as soon as it has been threshed; firstly, to screen out green weed seeds (which are likely to cause heating) and, secondly, because the current of air of the fanning mill dries the timothy seed while it removes im-

purities.

Experienced growers always pay a great deal of attention to the handling of their harvest of timothy seed and, by doing so, reap substantial rewards.



Mr. Alphonse Baillargeon cutting timothy in one of his fields at Ste-Hénédine in Dorchester County.

PROTECTING THE POTATO CROP LATE IN THE SEASON

The potato grower who has always been mindful of the quality of his crop will be paying it even more attention between the end of August and digging time. During this period, although there may be nothing he can do to increase the yield, he can do a great deal to maintain or improve its quality.

At the end of August or the beginning of September, many potato growers make a practice of giving their plants a good hilling-up. This operation, which might be termed a protective hilling, has the following advantages:

1. it helps the tubers to mature;
2. shelters the tubers from excess of moisture which often comes in autumn;
3. prevents the tubers from turning green and also protects them from early frosts;
4. in the event of belated epidemics of late blight, it prevents the often disastrous contamination of the tubers from the infected leaves.

Another way of getting the same result, recommended by Mr. Omer Michaud of the Quebec Department of Agriculture, is the complete destruction of the tops a fortnight before digging. There is nothing to equal this method for ensuring good-looking potatoes and making them easier to keep in storage.

At present, it appears that, as regards its effect on the quality of the tubers, it is better to destroy the tops by spraying them with chemicals than by using some mechanical means, such as the "rotobeater".



Apple picking time in the orchard of Mr. A. Lague at Stanbridge East in the County of Missisquoi.

APPLES SHOULD BE PICKED WHEN THEY ARE MATURE

The apple harvest is not intended to be a race between the growers to see who can get his crop on the market first, regardless of quality.

At the present time it is most important for fruit-growers to use every means at their disposal to keep their markets. The best way to do so is by offering high-quality, properly graded fruit. A satisfied customer will look for the same product again the next time he comes to buy. Several surveys have been made with the object of finding out what the customers really want. Over 90% said that they preferred a juicy, red, medium-sized apple. These are precisely the qualities found in the well-matured fruit.

Mr. Gilles Lasnier, specialist in fruit-growing, suggests that the following signs of maturity be used as a guide to the right time to pick apples:

- a) When the green side of the apple turns yellow;
- b) When the apple tends to separate easily from the fruit-spur;
- c) In each district, for each different variety there is a well-established date for picking which varies very little from year to year;
- d) In the case of summer varieties the brown colouring of the seeds or pips may be used as an indication of maturity;
- e) Amongst other methods of a more technical nature used for testing the state of maturity of apples are the following:

The pressure test, in which a specially designed appliance is used to gauge the firmness of the fruit;

Iodine is used to reveal the amount of starch in the apple. Starch gradually turns into sugar as the time for picking approaches;

Many growers have a tendency to start picking too soon, hoping to get the top price for the earlier part of their crop and taking the chance of having to sell the remainder at a ridiculously low price. In many cases, however, this practice leaves the customer dissatisfied and exposes the retailer to a deluge of complaints.

DIVISION OF GARDEN PERENNIALS

Generally speaking, the end of August is the best time for those who have perennial plants in their gardens to divide them if necessary. This work of division and replanting should be done, with a few exceptions, after the plants have finished flowering; in August or September in the case of those which flower in spring and summer, and in spring for those which flower in the fall.

There are, however, some kinds that are only in flower for a few

weeks or less, which are divided in June or July; for example, Irises, Primulas, and Pansies.

Mr. Charles Legendre of the Horticulture Service of the Quebec Department of Agriculture and Colonization points out that this does not mean that perennials should be divided every year. As a rule, once every three or four years will be enough.

A spade is the best tool to use for digging up the plants without doing too much damage to the roots and also for keeping some earth with them so that they will not be exposed to the heat of the sun. (It is better to do the job on

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

(Continued on page 187)

The Country Lane

EVENING

*I like to wander down the lane,
When evening shadows softly fall,
When birds come homing to their nests,
And dove to dove so softly calls.*

*The sun drops low out in the west;
The gentle lowing of the herds,
Is heard so faintly from afar,
All mingling with the chirp of birds.*

*When evening shadows softly creep,
So silently all down the hill,
The last notes of the little thrush,
Are warbled low, like music's trill.*

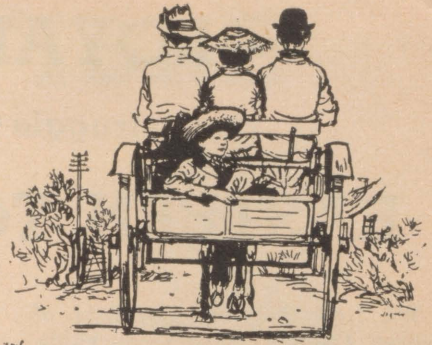
*Then night time drops her curtain down,
Enfolding earth, all soft and blue;
And fireflies flicker in the fields,
All covered o'er and drenched with dew.*

— Ethel KETTYLE,
Brownsburg, P.Q.

DAD, I WANT TO BE A FARMER

*My son you say you want to be a farmer,
And there are many things you do not understand.
Farming is a mode of life and living,
And not a job of getting cash on hand.
If you can love the land and country living,
And not lose faith when dust is rolling high;
If you can buy when other folks are selling,
And sell when others want to buy;
If you can win and not waste time in boasting,
And bragging of the things you've done;
If you can keep your farm work up to season,
And still have time to have a little fun;
If you can plan a programme that
Will give you feed for your stock in any kind of year;
If you can break a colt but not his spirit
So that he will obey through love and not through
fear;
If you can meet your banker without whining
Whenever a note comes due you cannot pay;
If you can catch a vision of the future
Through the clouds that overshadow you today;
If you remember every time you need them
Where last you left the hammer, the saw, or screw;
If you can work with badly worn machinery
And not make the atmosphere around you blue;
If you can keep your books and tell which project
Of all you have is paying you the best,
If you can take advice from some old-timer
And yet with modern methods keep abreast;
If you can raise a good share of your living
Can either win or lose and keep your head;
If you can work in filth and not be filthy;
If you can be friend to all about you
And leave an honoured name when you are dead;
If you can do all this and keep your manly charm,
My son, you have the makings of a farmer
And you're the man who's wanted on the farm.*

— Co-op Consumer



STOUT CORDS

*I am imprisoned in
The days that I have lived.
Each act I have committed
Binds me like stout cords.
I am a rushing stream
That carves rock-sided channels
In the Earth, and finds itself
Restrained thereby to devious ways.*

— G. P. HAWKE,
Farnham, P.Q.

OUR EARTH

*Our Earth is a poem of beauty,
A vision of delight,
A song escaped from Heaven,
A jewel, gleaming bright.
Framed in a pale jade setting,
Crowned with the alloyed gold,
Of sun and moon and starlight,
Clear cut from God's own mold.*

— Janet Pollock GRAHAM,
Grenville, P.Q.

BRIDGE OF FRIENDSHIP

*To seek the good in others
Is ever sound advice.
To try to find a reason
For signs of heat or ice.
To listen to their problems
And honestly give aid ...
Will forge the Chain of Friendship;
Thus happiness is made.*

*Each person has a purpose,
And may have many more;
Each life, a complex story,
With hope of love its core.
The world's great need is knowledge
Of how to live in peace,
That neighbours may in unity
All work that wars may cease.*

— Olive Sanborn RUBENS,
Montreal, P.Q.

*"In my whole life I have had many troubles, most of
which never happened."*

— Mark Twain

The LOYALISTS and their struggle to settle the EASTERN TOWNSHIPS

We find that the Loyalists of Lower Canada were remarkably few. The reason is easily found. The problem of what to do with the Loyal refugees was an embarrassing one for the government at Quebec.

Lord North suggested to Sir Frederick Haldimand, the Governor, that the Loyalist refugees at St. Johns and Montreal should be settled between the St. Lawrence and the United States boundary. Haldimand opposed this procedure. In November of 1783 he wrote from Quebec, "... it appears prudent to shun everything that might bring on a rupture with the bad neighbours who surround us. For this reason I would rather wish that the tract of country alluded to should be kept uninhabited as long as possible and have therefore deferred the repeated solicitations of many of the people of Vermont, who call themselves our friends, and of several Loyalists, for grants of land on that frontier."

He thought that for some time to come there would be bad feelings between the Loyalists and their former enemies. He thought too, that the natural increase of the French Canadian population would soon occupy that part of the country.

In April of 1784 the Secretary of State replied, "His Majesty approves of the plan you have proposed for settling some of the Loyalists at Catarqui (Kingston), and places adjacent, and is satisfied with the reasons you have given for suspending the execution of the directions contained in the Secretary of State's letter to you with regard to the establishment on the tract of land to the Eastward of the River St. Lawrence and bounded on the North and West by the revolted colonies."

Some of the disbanded officers at St. Johns disliked the plan to send them and their families into the wilderness of Upper Canada.

Lampee says, "As General Haldimand's preparations for a settlement on the upper St. Lawrence

were in progress, it was only natural that the attention of the Loyalists at St. Johns should be directed to the advantages of the unoccupied region at nearby Missisquoi Bay. During the war the region had been continually traversed by the Provincial scouting and foraging parties, and hence was well known to these Loyalists at St. Johns. The land was reasonably fertile and partially cleared, and it enjoyed the advantage of a water transportation. Most important to the minds of prospective settlers, there would be a ready market for their produce at St. Johns, only twenty miles by land and sixty by water. Finally, it was easily accessible and not too far removed from previous connections at the other end of the Lake. These were advantages which contrasted strongly with the remote isolation of Catarqui."

Haldimand refused all applications for land East of the Richelieu and South of the St. Lawrence. He settled the Loyalists in the Catarqui district, around Baie de Chaleur, in the Seigneurie of Sorel which he purchased for the purpose, and a few at Montreal, Chambly and St. Johns.

The Loyalists at St. Johns, determined to settle at Missisquoi Bay, and denied a grant in the area, purchased "an old Indian title" from one James Robertson, a trader of St. Johns, and on that shaky foundation, proceeded to make their settlement.

Haldimand used every means short of violence to discourage them, even threatening to burn their houses. All their provisions and allowances were cut off. However, they stuck to their guns and would not be moved.

In 1785 Haldimand was replaced by Governor Henry Hamilton. The settlers at the Bay immediately petitioned him for grants to the land on which they had located. Among the petitioners were such names as Wehr, Best, Haver, Ruyter, Deal, Cole, Streit, Feller, Drow, Thomas, Van Vorst, Henderson and Taylor. A later petition added such names as Luke,

Following acknowledgment by Britain of the independence of the United States, thousands of Loyalists left the American colonies. The story of their migrations has become tangled with the history of development of the Eastern Townships. Did the Loyalists open up the Townships? Or did opportunists from the independent colonies, attracted by the prospect of cheap land, cross the line at a later date?

by Gerald P. HAWKE
Farnham, P.Q.

from a paper presented to
Missisquoi Community School.

Smith, Hyatt, Miller, Sax, Sixby, Hogell and Cheesman. Most, but not all of them, had fought in the war as Loyalists.

The persistence of these early settlers finally paid off, for, by 1789, the Hon. Thomas Dunn had completed his purchase of the Seigneurie of St. Armand, had performed his "Acte de foi et Hommage" before Lord Dorchester at the Chateau St. Louis in City of Quebec and was ready to give them clear titles at the rate of two shillings per acre.

By 1792, following the passing of the Constitutional Act in 1791, pressure had become so great for settlement that the Government was forced to yield. "At present", wrote Isaac Ogden, "the prohibition to grant lands is a radical obstruction." The opportunities for land speculation open to members of the council, like Hon. Thos. Dunn, and others of influence in the Province, were sufficient to tip the scale.

On Feb. 20th, 1796, the first land grant was made to Thomas Dunn and his Associates, "of waste lands near Missisquoi Bay, adjoining the Seigneurie of St. Armand, in the County of Bedford in the District of Montreal". This grant became the Township of Dunham.

Others followed, and the names of Missisquoi Bay Loyalists are frequent among the Associates, for instance, Gilbert Hyatt was the leader of the Ascot Associates; Sherbrooke was originally called Hyatt's Mills.

I do not suppose there were more than 50 Loyalists eligible for inclusion on the "U. E. List", a register of "all Loyalists who joined the royal standard in America before the treaty of separation in the year 1783", who were connected with the Eastern Townships. Other than those who settled at Missisquoi Bay there were Capt. John Savage who "squatted"

(Continued on page 187)

NAME THE FIBRE

Is the fabric what the sales clerk says it is? Here are some simple tests which will help you identify common fabrics. They may also be used as a detective game to entertain the ladies!

Once upon a time, linen was woven from the long white fibres which grow in the stem of a flax plant. Now we have linen dresses made from rayon that originated in a spruce pulpwood tree and linen table cloths that began life in the seed of a cotton plant. And we have silk linen.

Then we have silks that are not "silk" silks but "rayon" silks—so the sales girl tells us. We were taught that silk comes from the cocoon spun by a pampered silk-worm. Can this idea be old-fashioned? We have even been under persuasion to buy mercerized cotton named silk. It was soft, strong and lustrous, an excellent fabric for cotton dresses and blouses but it was not silk and it would not behave like silk.

We have orlon that looks like cotton. Sometimes it is mistaken for cotton and here tragedy is in the making. There is the story of the dainty orlon-cotton batiste which was sold as pure cotton. The unhappy lass who bought it stitched her pretty dress, then began pressing with an iron set at the temperature recommended for cotton. But orlon shrinks away from a hot iron. The pressed side of the dress is now size ten, the unpressed side is the original size twelve.

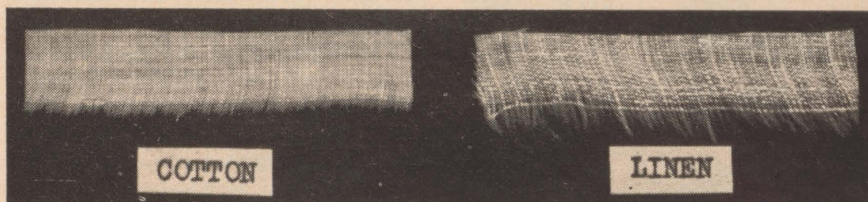
Each fibre has its own personality and character. It drapes and wears and washes in its own individual way. It should never be forced to do the work of another fibre. Like all square pegs thrust into round holes, it can only fail. But how can we know one fibre from the other and treat each as it should be treated if the clerk in the store and the label on the cloth does not tell us?

Many of the fabrics we buy can be identified by careful observation and by simple tests. "Name The Fibre" is a game as fascinating as a detective story. The cloth has all the clues. The tests given here will help you to detect them. Only a little practice is needed to become an expert. Get your scrap bag and try your skill. Become a Perry Mason of textiles.

The tear and the ink spot tests, for instance, will distinguish cotton from linen.

The Tear Test

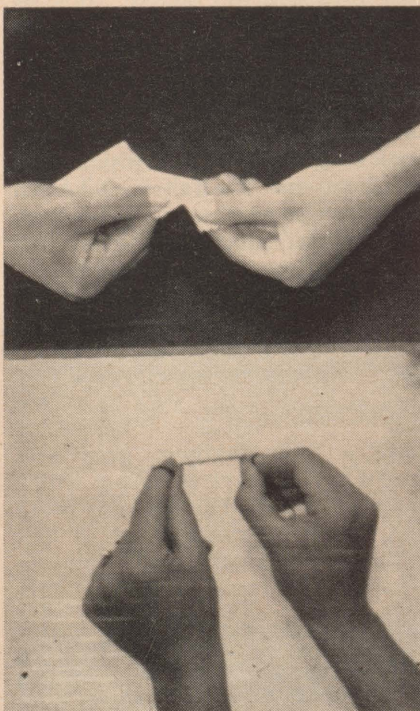
Take a piece of the cloth four or five inches long and about two



inches wide. Snip a quarter inch cut at one end along a yarn. Catch the cloth on one side of the snip between left thumb and forefinger and on the other side between right thumb and forefinger, with thumbs on opposite sides of the cloth. Rip with one quick strong motion.

Linen is hard to tear because the fibres are long and strong. The yarns are slubby, thick here and thin there. So is the cloth and

Correct position in which cloth should be held for tear test.



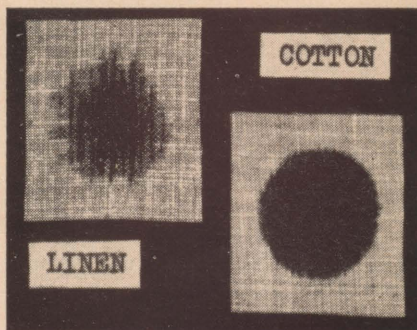
Position for holding fibre for breaking test.



**by Prof. M. JENKINS,
School of Household Science**

this uneven texture is one trait of linen. The yarns break at their thinnest parts, which may be in the material and not along the tear line. They pull out, leaving a ragged edge with long and short ends protruding. They drag the cloth to one side and shirr it up in puckers.

Cotton fibres are short and do not have the strength of linen. The cloth tears more easily and in a straight line. As it tears it utters a shrill protesting sound.



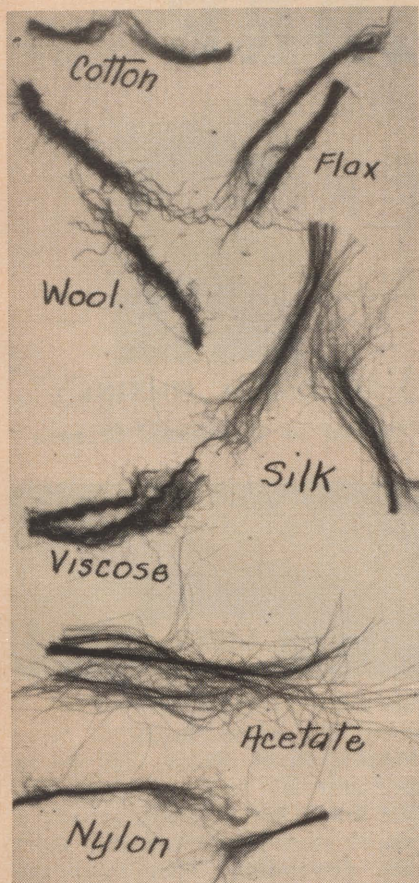
The Ink Spot Test

A drop of ink on a linen fabric spreads in a circle with even colour. At the edge it will wick out along the yarns in a dark blue fringe effect. The spot on cotton is more oval, with an even edge, a pale centre and a darker rim.

The Press Test

Another little test is to catch a yarn near its end between thumb and forefinger. Press very firmly, then draw the yarn free. If it is linen, the pressed end will stand out stiff and straight. Cotton hangs limp and drooping.

The Broken Yarn Test



Draw a yarn six to eight inches long from the cloth. If it is made of two or more strands, separate these and use one only. Take out all the yarn twist by rolling between the fingers until the fibres are parallel. Now wrap each end of the strand around a forefinger, bring the thumb up to support the centre and pull apart very, very gently.

Cotton yarns are fuzzy with fine protruding fibre ends. When they are broken they almost snap apart because cotton has little stretch or elasticity. The ends are short and even, like tiny brushes. Often they curl because the natural fibre itself twists round and round.

Flax has a long fibre of supreme strength but poor elasticity. If the yarn is heavy it will cut the fingers before it will break. When it is broken, the fibre ends are long, straight and lustrous. The tips are pointed and uneven; they never curl, but stand out stiffly.

A woollen yarn has a tangled fuzziness that no other has. When it is pulled for the break test it stretches because wool is extremely elastic. The broken ends are wavy and spiral in shape.

Silk, too, is elastic. Before breaking, it will stretch to a sur-

prising degree, (much more than wool) then snap apart, but only when it has exceeded its stretching power. The ends are fine and lustrous.

If tension is exerted on a dry viscose yarn it parts easily because it is not a strong fibre. If dampened it separates under the slightest strain for it loses much of its slight strength when wet. The separate filaments of the dry yarn simply burst and the ends fan out into a pattern like a tree with many stiff branches.

Acetate too is weak. The fibres slip apart easily and fly outward from the break.

Nylon yarns have the strength of steel, the stretch of rubber, and the smoothness of a skate on ice. If they are not wrapped tightly around the fingers they will slip. When they break the fibres tangle in a fluffy mass.

The Flame Test

A mere scrap of fabric, even a clipping from a seam allowance, is large enough for this test. A match can be used for the flame, although a candle is ideal; it lasts longer. A pair of tweezers to grip the cloth will guard against the danger of burned fingers.

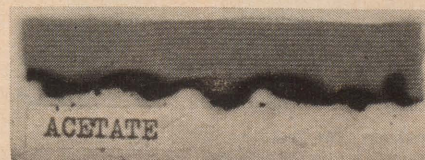
Hold the cutting close to, but not in, the flame until it catches fire, smoulders or simply melts. Note the speed with which it burns. Smell it. The odour is significant. Handle the residue, but wait until it is cold. The keys to identification lie in the way in which the fabric burns, the speed, the odour and the residue.

Cotton, linen and viscose rayon all burn alike. The flame is large and yellow. When it is blown out, a glowing coal is left which continues to char the fabric. All burn rapidly, viscose faster than cotton and cotton faster than linen. All



leave a light feathery gray ash, except for mercerized cotton which has a black ash. The odour is much like that of burning wood.

Cellulose acetate and cellulose triacetate (arnell or trilan) are

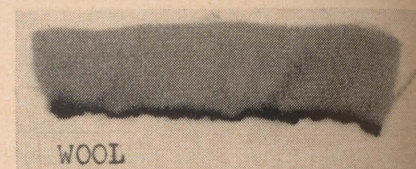


thermoplastic — they melt when they are heated. The fabric blazes as it burns. It puckers, sputters, melts and drips like tar.

Be careful not to let the molten stuff fall on your hand, the burn is deep and painful. This warning applies also to nylon, orlon and terylene for they too are thermoplastic.

The rate of burning is rapid. The odour is what burned vinegar might smell like, for there is acetic acid both in vinegar and in the acetates. The burned part is a hard, shining, brittle black mass which cannot be crushed but breaks between the fingers.

Wool is slow to ignite. It sizzles and curls when burning, but the wool flame dies when the candle



flame is withdrawn. The odour is like that of burning hair or feathers, unpleasantly strong because wool contains sulphur. The ash is dark, almost black, and in the form of an irregular mass which can be crushed easily and pleasantly between the fingers.

Silk, too, ceases to burn when the candle flame is withdrawn. The odour is like what a wool (both are protein fibres) but less unpleasant because silk contains no sulphur. If it is held beside the flame, not too close, it will form



a row of round, crisp, shiny black beads that can be crushed easily. No other fibre can form this regular necklace of beads.

Weighted silks are saturated in tin chlorides and iron sulphates and other metallic salts which are absorbed by the fibres, then the material is dried. The fabrics are crisp and heavy and quite beautiful, but unfortunately the weighting material forms crystals inside the fibres and soon cuts them, causing the breaks shown in the illustration above. Weighted silks have another disadvantage. When they are washed, they tend to crumple into fine lines and creases that the iron cannot remove.

They are easily identified by the flame test. The silk slowly becomes incandescent and smoulders away,



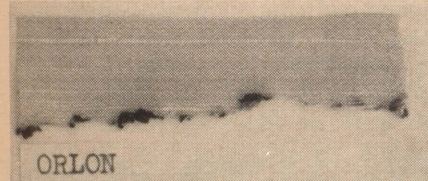
but the metallic salts are not affected and remain as a screen-like skeleton of the original fabric. The odour is the same as that of pure silk.

Nylon will not support a flame. Instead, it melts into an extremely hard mass which is creamy-white or amber or, if it has been dyed, a colour darker than the fabric.



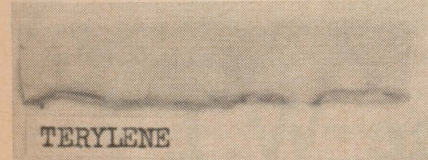
As it melts, it shrinks away from the flame. The odour is peculiar and difficult to describe, but once smelled, it is not forgotten.

Orlon does not ignite immediately, but once started it burns rapidly with a large yellow flame, curling back from the candle. The



odour is unpleasant, sour, acrid and pungent. A brittle black mass is left.

Terylene supports an orange-yellow flame which has a bluish base. Like the other synthetics it burns rapidly and melts, curling away from the candle flame, but it does not sputter. The burned part is a hard plastic-like solid.



The odour, which is sweetish, and the flame distinguish it from the other members of the synthetic family.

Dacron and terylene, by the way, are the same. They make the same fabrics and behave in the same way. The chemist will state that there is a difference—in the very tip end of one of the chemicals used to make the fibre—but this difference has no effect in use and we can ignore the chemist's greater knowledge.

Now begin the search for the clues in one test; the cross-ex-

amination to substantiate the proof in another; then the summing-up and the judge's verdict. Your fee? Knowledge, not guesswork, in the use and care of your fabrics.

QUEBEC'S LARGEST DAIRY CO-OPS AMALGAMATE

The Agricultural Co-operatives of Granby and Plessisville have just announced amalgamation of their dairy processing facilities. Under the agreement Granby acquires the Plant of the Co-operative of Plessisville and will administer the plant which will remain at the service of farmers in the surrounding region who wish to join the Granby group. The amalgamation results from the need for consolidation in the dairy industry and is considered to be a progressive step both for the industries and for members of the two co-operatives.

The Co-operative of Plessisville in conjunction with several neighbouring co-operatives has 1,050 adherents. In 1961, it manufactured butter, powered milk, and caséin from almost 100 million pounds of milk for a turnover of \$3,246,000 from its dairy interests.

The Granby Agricultural Co-operative working in conjunction with 30 local co-operatives groups some 6,250 milk producers. It has five modern plants at Joliette, Sainte-Anne de la Pérade, Notre-Dame-du-Bon-Conseil (the largest dairy establishment in the country), Coaticook and, finally, Granby, headquarters of the Co-operative. Last year it received 530 million pounds of milk. It manufactures butter, more than ten million pounds last year; cheese, 26 million pounds last year; concentrated products, 26 million pounds. It has a sales service selling on both domestic and foreign markets, and has just negotiated a sale of 100 million pounds of milk in pure protein form to the Sheffield Chemicals Company of New York.

THE LOYALISTS . . .

(from page 184)

in Shefford in 1792, and Abraham Cuyler, former mayor of Albany, who secured many acres of land in Farnham for himself and his family. There was his son-in-law, William Johnson Holt, who became an Inspector of Pot and Pearl Ash in Montreal and whose wife, Elizabeth Cuyler Holt, was a grantee of Farnham. No doubt there were others whom I have forgotten, or about whom I never knew.

GARDEN PERENNIALS . . .

(From page 182)

a cloudy day, or in the shade).

After the plant has been dug up, the next thing to do is to remove some of the earth from round the roots and then divide them, either by hand or with the help of a good sharp knife, in order to obtain the desired number of plants. As far as possible, it is better to avoid using the spade for this part of the work. Following transplanting, water the newly transplanted roots generously during the next week or so.

In places where the snow does not lie deep enough in winter to protect these perennials, care should be taken to save them from being damaged by frost, by laying branches of pine or spruce over them to catch and hold the snow.

BEEF CROSSBREDS GAIN FASTER

Comparison of the gains of beef breeds and crossbreds is under study at Canada Department of Agriculture experimental farms.

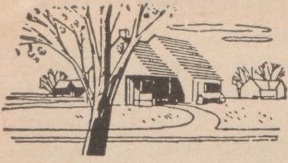
Dr. L. A. Charette of the Kapuskasing, Ontario, experimental farm, drew the tentative conclusions that crossbreds from some breeds gain faster than purebreds and some crossbreds gain faster than others.

Purebred Shorthorn cows of CDA herds at Kapuskasing, Lennoxville, Que., and Ottawa were bred artificially to Charolais, Hereford and Angus sires, and to sires of their own breed. At 196 days of age, the average weights of the progeny were 485, 438, 403 and 383 pounds and the daily gains from birth to weaning were 2.03, 1.99, 1.81 and 1.76. Thus the Charolais-Shorthorn crosses gave the highest and fastest gains and the purebred Shorthorns the lowest and slowest gains.

The experiment is being continued by mating the crossbreds with sires of the four breeds. First calves were dropped in 1961 and information on their rate of gain will be available later.

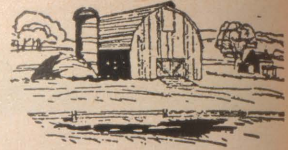
THE PEA APHID

This very concise bulletin describes the Pea Aphid, its distribution, life history, description of damage, natural controls, and chemical controls. A must for pea producers. *Publication No. 1146* — date, May 1962 — available from the Information Division, Canada Department of Agriculture, Ottawa, Ontario.



The Better Impulse

NEWS AND VIEWS OF THE
WOMEN'S INSTITUTES OF QUEBEC



Think Safety

Summer time seems to bring its own special safety problems, as we usually have more accidents with old abandoned refrigerators and plastic bags. However, through constant warnings and education of the public we have to a great extent lowered the fatalities which result from these accidents. I believe we must do the same to all water safety rules regarding swimming, boating and all recreation near water.

One cannot pick up a paper without reading a tragic report of children or adults drowning when seemingly out for a vacation and pleasant relaxation. We must strive, therefore, to bring before the parents and the children and all persons responsible for water front activity and make them observe all rules governing water safety.

We are not all equipped or able as the trained life guard to jump in and save people from drowning, but we can learn to swim and handle a boat properly and make sure that everyone is following the safety rules. Prevention of accidents is far better than trying to undo tragic mistakes.

Over crowding of boats is number one on the list as causing drowning accidents. Make sure that all children are wearing life jackets and of the kind approved by the Safety Council. All boat owners are required by law to provide life jackets for all occupants. There is a fine for violation of this law,

by Mrs. H. L. CASS,
QWI Convener of Welfare
and Health

non-swimmers should always wear them, not just have them in the boat. Each one should have his place in the boat decided upon before leaving. No changing of places

**CBC-TV — Watch for WI
program on Country Calendar
Sept. 2, 4 p.m.**

**SALADA SYMBOLS — Secretaries to
collect these monthly and forward to
Mrs. Bernhardt who will send them to
the company.**



Mrs. Wallace Kerr, County Secretary, presenting Gavin Farmer with the County WI prize of \$25 at the first Chateaugay Valley Music Festival, held at Ormstown.

or standing up allowed. Manufacturers of out-board motors will recommend the size of boat to be used with their motors. Follow this advice to the letter as too powerful a motor for the size of boat may result in a capsized boat. The number one rule to follow if an accident such as this happens: **STAY WITH THE BOAT.** Do not attempt to swim to shore as it usually is farther than it looks. If you have your life jacket on you will undoubtedly be saved.

I do not believe parents having the welfare of their children at heart would blindfold them and let them cross the street at a busy corner. However, giving them inflated objects, toys and inner tubes to play with in the water can be just as dangerous unless constantly watched by responsible persons. Quite often they will float a child beyond his depth and either through panic or being suddenly overturned the child loses his grip and, in a twinkling, is under. A small child cannot get up fast enough even in shallow water before inhaling sufficient water to cause loss of consciousness, with drowning as a result, unless pulled quickly from the water and artificial respiration applied.

The Red Cross has a wonderful **LEARN TO SWIM** project. Every community should try to teach the children not only how to swim but all the safety rules regarding boats and life saving. It is only through constant education about the dangers that we can ever hope to combat these tragic accidents. Let us all set a good example to follow.

The Month With The W.I.

The Convention and the Short Course are very much in the news this month. Almost every branch reported on them, and delegates are to be congratulated on taking home such excellent accounts of these occasions. Several demonstrations on needlepoint have been given—this seems to have been very popular. Many branches do not have meetings in the summer months, and we will welcome their return in the fall.

ARGENTEUIL:

Brownsburg had a quiz on the Handbook. **Dalesville-Louisa** report that four members received prizes for work shown at a local fair. A donation was given to purchase books for the local school

library, and a W.I. member from Port Daniel was a guest at the meeting. **Morin Heights** are proud of Mrs. Lawson Kennedy who took 2nd prize for her afghan, and 3rd prize for a table-cloth in the Salada contest. Both of these articles were crocheted. **Upper Lachute-East End** entertained W.I. members from Lakefield. Mr. W. B. Younkies, guest speaker, spoke on "Food Distribution."

BONAVENTURE:

Black Cape grandmothers came attired in old fashioned dress. The grandmothers put on a skit, and a poem was read about customs etc., in the olden days. A donation was given to the High School Year Book. **Matapedia** held a rummage sale and a Garden Festival.

BROME:

Abercorn enjoyed a leatherwork course conducted by Miss Runnells. **South Bolton** are sad to report the passing of one of their oldest members, Mrs. Fred O'Reilly, 83 years old. A report was also received from **Austin**.

CHATEAUGUAY-HUNTINGDON:

Dundee had several interesting readings including one on eye trouble of children, and another on the use of insecticides around milk and animals. **Franklin Center** held a food sale to raise money for school prizes. **Hemmingford** are assisting the Chateaugay Valley Historical Society in trying to preserve old sites. A talk on ARDA was given by Mrs. L'Esperance. **Huntingdon** had a talk by the County President, Mrs. Middlemiss, and **Ormstown** entertained Mrs. Middlemiss and the Huntingdon members. Beauty Counsellor products were demonstrated by Mrs. K. Aldridge, with Mrs. George McAdam as the model. Reports were also received from **Aubrey-Riverfield** and **Howick**.

COMPTON:

Brookbury donated to the Cemetery Fund and to the High School for prizes. **Canterbury** held a picnic for the children. **Cookshire** enjoyed a talk by a representative of the Sherbrooke Trust Company, on making wills, and the right kinds of investments for women. A travelling patch pocket apron is being circulated to raise money. **East Clifton** members attended a "Home and School" meeting and heard Mr. C. W. Dickson speak on Central Schools. **East Angus** heard about the YWCA world conference held in Kingston, Jamaica, from a delegate, who also told of visits to Bermuda, Barbados, Nas-

sau, etc. **Bury** entertained Lennoxville W.I. Mrs. F. Bennett spoke on "Then and Now". Meals were served at the Dominion Day celebration, and at the blessing of the new Catholic School.

GASPE:

Haldimand had a First Aid contest. **York** held a rummage sale, a contest for squares, and a sale of pies. **Wakeham's** roll call was "How our W.I. could help people in other lands". A weiner roast was held indoors owing to the weather, but went over fine just the same. **Gaspe** auctioned a cake, and received a generous donation from a member.

GATINEAU:

Aylmer East report that four members attended the ceremony at St. George, Ont. when the plaque was unveiled to commemorate Mrs. Adelaide Hoodless, founder of the Women's Institute. Miss Jean MacLean showed travel pictures of Nassau and California. **Breckenridge** had a talk by Mrs. P. MacMillan, convener of Education, entitled "Education is many things." A demonstration was given by Mrs. McConnell on "How to try a zipper for defects", and Mrs. G. Findlay showed how to apply a tourniquet. **Rupert** members attended a Memorial service in Rupert Union Cemetery—this cemetery is well cared for by W.I. members. **Wright** enjoyed a tour of the Maniwaki Weather Station, and the new St. Joseph's Hospital in Maniwaki. Mr. J. M. Pearce welcomed the members and afternoon tea was served by a former W.I. member, Mrs. Kearney. Sister Sainte Martine de France and Sister Helene de la Passion conducted the tour of the hospital.

MISSISQUOI:

Cowansville enjoyed a picnic at the cottage of Mrs. McClatchie. An interesting letter was read from the "Link" in England, and cards were received from a member of this branch who is on a tour of Switzerland with members from the link branch. A talk on travelling in Pennsylvania was given by Mrs. McClatchie. **Dunham** gave a donation to the Hobby Show, and **Fordyce** favoured the Calf Club with a donation. **Stanbridge East** sent parcels to Unitarian Relief, and also assisted the Hobby Show with a donation.

PAPINEAU:

Brought in articles as prizes for races, etc., to be used at a picnic. A millinery course will be held.

RICHMOND:

Cleveland heard a reading given by Miss Dresser on the unveiling of a plaque at the Adelaide Hoodless Home. **Gore** are making bed jackets and dressings for the Cancer Society. **Melbourne Ridge** gave a donation to the U.C.W. as a "thank you" for the use of the Church Hall. **Richmond Hill** had a quiz on farm products, the prize winners being Mrs. Hawker and Mrs. J. Mason. **Richmond Young Women** celebrated their 15th anniversary, with Institute presidents, former members of the branch and Melbourne Ridge W.I. as guests. Mrs. Lyla Beattie, a charter, and still an active member of the branch was presented with a gift, as was Mrs. V. R. Beattie at whose home the first meeting was held. Mrs. Henry Fowler and Mrs. Robert Kerr, good friends of the branch were also honoured. **Spooner Pond** heard a report on the Field Day at Macdonald College. Remnants were sold by the Home Economics convener.

(Continued next month)



The **GOLDEN AGERS** being entertained by the Abbotsford W.I.



A session of the sewing course conducted by Mrs. Wells at Howick.

PRIZE WINNERS IN SALADA FOODS CONTEST

Dresses

- 1st. Mrs. Warren G. Ross, Sherbrooke
- 2nd. Mrs. Hugh Wallace, Lennoxville
- 3rd. Mrs. G. D. Harvey, Stanbridge East

Tablecloths

- 1st. Mrs. Leslie A. Gibbons, Arundel
- 2nd. Mrs. G. D. Harvey, Stanbridge East
- 3rd. Mrs. Lawson Kennedy, Morin Heights
- Honorable Mention. Mrs. V. R. Beattie, Richmond

Hooked Rugs

- 1st. Mrs. S. J. Sayer, Vallee Jct.
- 2nd. Mrs. Lionel Cadieux, Aylmer East
- 3rd. Miss Laura Bisson, Marcil
- Honorable Mention. Mrs. Lottie Osborne, Richmond

Afghan or Lady's Sweater

- 1st. Mrs. Morency, Ste. Anne de Bellevue
- 2nd. Mrs. Lawson Kennedy, Morin Heights
- 3rd. Mrs. Henry Jones, Waterloo

Resolutions

Changing of Place Names

WHEREAS place names in Quebec are often of historical significance, and are one way of preserving the memory of pioneers, as well as adding interest for those touring the province; and

WHEREAS changes in place names have sometimes been made with residents of such communities or districts not aware of the proposed action until too late to prevent it, if not in approval, thus leading to much ill-will and controversy

BE IT RESOLVED that the Quebec Women's Institutes Inc. petition the Attorney-General of Quebec to amend the Municipal Code and Cities and Towns Act as follows:

- a) *That no recommendation should be made by a Municipal Council to change a place name without first notifying the residents of said community or district of this intention;*
- b) *that a proper inquiry be carried out in each instance by the Private Bills Committee, to ascertain the wishes of the residents of said community or district before such action be implemented.*

Retarded Children

WHEREAS the Quebec Women's Institutes Inc. is on record as strongly supporting all work being done for the care and training of retarded children in the Province of Quebec

WHEREAS recent curtailment of financial support of English homes for retarded children in the Province has closed one, limited admission to another and threatened the closing of the third and last such home, creating a very serious situation,

WHEREAS the care of these children in this Province has been neglected for so long and is behind that of the other Provinces

BE IT RESOLVED that this convention send a recommendation to the Minister of Family and Social Welfare, the Honorable E. Lafrance, urging that his department do everything in its power toward the building of homes and schools for the care and training of these children.

News from July, 1962

RICHMOND:

CLEVELAND had a "Visitor's Meeting" A quilt made by the branch is to be sent in to the Convention display. DENISON MILLS discussed ways to help retarded children. Corsages were made and worn at the meeting, and donations made towards school prizes. GORE heard a reading by their Welfare and Health convener, and are planning a trip to the Cecil Memorial Home. MELBOURNE RIDGE report completion of a successful slipper-making and Leatherwork course. RICHMOND HILL gave a shower for a bride-to-be and sent a donation to the school for Retarded Children SHIPTON are making blocks for a crib quilt, and they also gave to the Retarded Children's School. SPOONER POND held a buttonhole making contest, with the prize won by Miss M. Campbell. Each member brought a flower corsage for her right hand neighbour. RICHMOND YOUNGWOMEN enjoyed a weiner roast, and sent a donation to the School for Retarded Children.

STANSTEAD:

HATLEY entertained members from Milby W.I. and had as their guest speaker, Mr. Emo, Vice-president of Lake Massawippi Protection Club, who told of their conservation project. WAYS MILLS held a rummage sale, and sent a donation to the Hot Lunch fund at their school.

ROUVILLE:

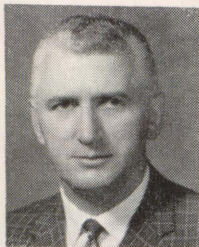
ABBOTSFORD entertained the Friendship Group of Golden Agers. Mrs. Normandin and Mrs. Labrecque of Beauty Counselor gave a talk and demonstration on the care of the complexion and the use of various products to keep the skin young and lovely. Mrs. S. R. Fisk and Miss Sandra Coates acted as models for the demonstration.

SHEFFORD:

GRANBY HILL's roll call "My Favourite Vegetable and How to Prepare it" brought forth many new ideas on the preparation of old standbys. The President was chosen as delegate to attend meetings with the intention of forming a Community School in Granby. GRANBY WEST discussed the proposed Community School, and had a contest on Books of the Bible. WATERLOO-WARDEN had a contest on Statistics of Canada, and a reading from the C.A.C. Bulletin.

SHERBROOKE:

ASCOT members and their guests enjoyed a talk by Mrs. W. Evans on her holiday in Florida. Madame LeBeau was also a guest, and she spoke urging members to attend the Leadership Course. BELVIDERE donated food to Lennoxville High School. Cafeteria. BROMPTON ROAD made hats from household items landscape, vegetable and fruit gardening. LENNOXVILLE enjoyed an illustrated talk on the Grace Christian Home by Miss Carson, R.N. 12 hours work was put in at the Cancer Dressing Station making 41 bed pads and 75 dressings.

**Dr. E. J. LEROUX**

The Department of Entomology and Plant Pathology is pleased to announce the appointment of Dr. Edgar J. LeRoux as Associate Professor of Entomology.

Dr. LeRoux was born in Ottawa and, after active service in the Royal Canadian Navy from 1941 to 1946, he entered Carleton University (then Carleton College), where he obtained his B.A. in Biology in 1950. He then proceeded to Macdonald College, obtaining his McGill M.Sc. and Ph.D. in 1952 and 1954 respectively.

Dr. LeRoux was appointed Assistant, then Associate Entomologist in the Canada Department of Agriculture in 1949 and 1952, became Entomologist in the Research Branch in 1958 and Senior Entomologist in 1960. His earlier service was in Ontario, Nova Scotia and in the Arctic on a Northern Insect Survey, but for most of his professional career he has been at the Research Laboratory at St. Johns, Quebec, where he has achieved international recognition as an insect ecologist. His best known work is in connection with long-term studies in Quebec apple orchards, but his interests in biology are very wide and by no means restricted to entomology—as reference to his numerous publications will show.

Dr. LeRoux, who is bilingual, has been a very active member of several entomological and other scientific societies in North America. He also has many other in-

Dr. A. F. MacKENZIE

The Department of Agricultural Chemistry announces with pleasure the appointment of Mr. Angus Finlay MacKenzie, Ph.D., to the position of Assistant Professor to that Department.

Dr. MacKenzie was born at Elrose, Saskatchewan. He took his B.S.A. with distinction at the University of Saskatchewan in 1954 and subsequently took his M.Sc. there in 1957. Dr. MacKenzie then proceeded to Cornell University, when he graduated Ph.D. in 1959. From 1959 until May 1962 Dr. MacKenzie was Assistant Professor in the Department of Soil Science, Ontario Agricultural College.

Dr. MacKenzie has worked on the availability of soil phosphorus and on the chemical and physical changes undergone by plant material in its transformation to peat, and he is the author of a number of papers dealing with his research on these subjects.

Dr. MacKenzie's wife, Joan (nee Phillips), is also a native of Saskatchewan. They will be accompanied by their two children, Douglas (3 years) and Susan (2 years) and they will take up residence at 9 Maple Avenue in the course of the summer.

Dr. MacKenzie acquired a taste for skiing during a winter spent in British Columbia with the Federal Department of Agriculture. He is also a keen swimmer and a fisherman.

terests, particularly where young people are concerned. He is a past president of the St. Johns Branch of the Professional Institute of Public Service of Canada, and is President of the Quebec Division of the Navy League of Canada for 1961-62.

**Miss C. HOLLIER**

The School of Household Science welcomes Miss Carolyn Hollier, a Graduate, who is returning as a lecturer in Home Economics in September. After graduation Miss Hollier completed a dietetic interne course at the Toronto General Hospital and has been a home economist with the Consumer Section of the Department of Agriculture in Ottawa. Miss Hollier will lecture in Foods and Household Administration, replacing Mrs. Frances (Tucker) Hicks who has left for Saskatchewan.

In addition to her teaching duties Miss Hollier plans to enroll as a graduate student to work for a master's degree in human nutrition. Miss Hollier's home is in Lachine, Quebec and we are very pleased that she has chosen to return to Macdonald College.

Dr. Fairbairn to Head Department of Zoology, University of Massachusetts

DR. DONALD FAIRBAIRN, a member of the staff of the Institute of Parasitology at Macdonald College since 1946, is leaving the University at the end of August. Dr. Fairbairn is going to the University of Massachusetts at Amherst to take up an appointment as Commonwealth Professor of Zoology and Head of the Department of Zoology. Dr. Fairbairn is well known for his contributions to scientific research in the field of the biochemistry of parasitic nematodes. He is a member of the Editorial Boards of *Experimental Parasitology* and the *Journal of Parasitology*.

While research has been the main occupation of Dr. Fairbairn at the Institute of Parasitology he has also been responsible for directing the studies of several graduate students, including two from Australia. In addition, he has been Program Director of a Training Program of the U.S. National Institutes of Health and has been responsible for the training of several postdoctoral trainees.

New Confinement Growing Shelters

One of two confinement growing shelter of meat type birds just completed at Macdonald College to replace old poultry range. The two buildings are each 50 feet by 110 feet with a passage down centre. Constructed with wire walls, they have a capacity of 2500 to 3000 heavy birds.

to
serve
you
better



Master and Pioneer-Cafeteria pool their Canada-wide resources

Maple Leaf Mills Limited announce that Pioneer-Cafeteria Feeds Ltd. (their wholly-owned subsidiary) has been combined with the Master Feeds division of the Company, to form **one** nation-wide organization — a Canadian feed company with resources and experience equal to any.

The combination of the practical dollars-and-cents research at the Master Feeds Farm and the extensive Canada-wide experience of Pioneer-Cafeteria will benefit the entire farming community. As in the past, the expanded Master service organization will co-operate closely with all those concerned with improving

agriculture, particularly as it affects the health of animals and poultry.

In agriculture, perhaps to a greater extent than in any other area, there is a partnership between the producer, public authorities and commercial companies to improve standards and speed the use of new findings. Master Feeds hopes, through its expanded resources, to make a still larger contribution in the future to a more prosperous Canadian agriculture.

Master Feeds, division of Maple Leaf Mills Limited, Saint John, N.B., Montreal, Toronto, Winnipeg, Calgary.

MASTER FEEDS • IT'S RESULTS THAT COUNT!